

**Commonwealth of Kentucky**  
**Division for Air Quality**  
***PERMIT STATEMENT OF BASIS***

DRAFT

Conditional Major, Construction / Operating

Permit: F-08-028

Brake Parts, Inc. (Affinia group)

Stanford, KY 40484

November 24, 2008

Babak Fakharpour, Reviewer

SOURCE ID: 21-137-00011

AGENCY INTEREST: 2714

ACTIVITY: APE20080003

**SOURCE DESCRIPTION:**

This plant manufactures asbestos-free automotive brake components. Metal backing plates are cleaned by sand blasting and painted with a powder coating. Various resins, powdered metals, plastic fibers, fillers, and other compounds are mixed, formed into pads, cured in heated presses, machined into the final shapes. The pads are attached to the metal backing plates with a solvent-borne adhesive.

The material handling, mixing, curing, machining, and painting operations generate particulate matter (PM) emissions. The PM emissions from the mixing, curing, and machining operations are controlled by one or more baghouses. PM emissions from the metal backing plate sandblasting operation is also controlled by a baghouse.

The friction material machining and curing operations generate emissions of various volatile organic compounds, including the hazardous air pollutants phenol, aluminum metals, and formaldehyde. The hydrocarbon emissions from the curing ovens are controlled by afterburners, while the hydrocarbon emissions from the presses and machining operations are not controlled.

**PERMIT RENEWAL AND MINOR MODIFICATION:**

The source was issued a Title V permit February 10, 2003. As a major source, Brake parts Inc. was subject to 401 KAR 52:020 due to their HAP (Phenol) and PM emissions. At this time the source is requesting limitations on VOC, and HAP emissions in addition to the hourly and annual throughput of material and parts. As a conditional major source Brake parts Inc., will be required to operate the control systems when the processes are operating unless otherwise allowed in this permit.

Brake parts Inc. is currently operating under permit V-01-025 (Revision 1). The Division received a Title V Renewal application on November 20, 2007. Subsequent applications received by the Division are: Minor permit revision for the addition of Leinweber Lean Cells, removal of the following; Leinweber Presses, one (1) Roll coating plate adhesive line, a powder coating line, Ramco Cure Oven on February 28, 2008, notification of addition of a Quality Control Bandsaw at new Leinweber Cell to the insignificant activity list received on May 14, 2008.

A site visit was conducted on August 6, 2008. Additional information requested as a result of the site

visit was received on August 18, 2008. The additional information pertains to the withdrawal of the November 20, 2007 and February 28, 2008 applications and re-submittal of a new permit application dated August 18, 2008.

#### **COMMENTS:**

**Emission Controls** - Particulate emissions from the following processes shall be controlled by baghouses:

EP 22 (201-224) Corsteel Preforms 75Ton with overall efficiency of 99.87%

EP 10 (401-412, 414-417) Grinders with overall efficiency of 99.87%

EP 31 (unit 701-772) Leinweber Curing Presses with overall efficiency of 99.87%

The baghouses shall be provided with adequate access for inspection and shall be in operation when the processes are operating.

**Thruput Limitations** - The facility has a bottleneck in the press operation. The potential emissions were calculated based on 11,195 pads/hr (the bottleneck)

**Emission Calculations** – Emissions of regulated pollutants from Weighing and mixing (EP 35 and EP50) were calculated using AP 42, Section 13.2-4 and 11.6-1.

The emissions of PM from the Preform machine are determined using emission factors supplied in the application.

Emission factor for the following process were calculated using MSDS and material balance: Powder Coat Line, Adhesive Line, Press and Curing Oven emissions, Grinders, Press emissions, and Shotblaster.

#### **Applicable Regulation –**

401 KAR 59:010, New process operations applies.

401 KAR 63:020, Potentially hazardous matter or toxic substances.

401 KAR 61:132, Existing miscellaneous metal parts and products surface coating operations does not apply because Brake Parts, Inc. is not in a nonattainment area.

40 CFR, Compliance Assurance Monitoring (CAM), does not apply to any emission unit because this source is being approved to operate under a Conditional Major permit and, pursuant to 40 CFR 64.2(a), the requirements of this rule are applicable only to a source required to obtain a Title V (Part 70 or 71) permit.

#### **EMISSION LIMIT:**

- PM/PM10 EMISSIONS AVERAGED OVER 3 HOURS (USING APPROPRIATE EPA TEST METHOD) SHALL NOT EXCEED THE FOLLOWING EQUATION FOR PROCESS WEIGHT RATES UP TO 60,000 LBS/HR:  $E = 3.59 \times P^{0.62}$
- OPACITY: 20%

#### **EMISSION AND OPERATING CAPS DESCRIPTION:**

To preclude Title V applicability, source wide emissions of Volatile Organic Compounds (VOC's) shall not exceed 90 tons per rolling 12-month total. Particulate matter (PM) emissions shall not exceed 90 tons per year based on a 12 month rolling total for the entire source. Source wide emissions of any individual HAP shall not exceed 9 tons per rolling 12-month total per year, and the emissions of all HAP shall not exceed 22.5 tons per 12-month rolling total.

VOC emissions shall be calculated monthly based on paint usage and percent VOC from the MSDS of the paint.

**CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.